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Division of Marine Fisheries

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Eelgrass Restoration Project in Boston Harbor

Outreach Opportunity and Safety Protocols for Volunteers

Overview: The primary goal of the Massachusetts Division of Marine Fisheries (*Marine Fisheries*) Eelgrass Restoration Project is to re-establish eelgrass in Boston Harbor. Eelgrass beds stabilize bottom sediment and serve as habitat for many marine creatures. Historically, disease and poor water quality have greatly reduced the amount of eelgrass growing in Boston Harbor. Recent water quality improvements from sewage treatment projects have created conditions more conducive to eelgrass survival. Under such circumstances, manual restoration of eelgrass can speed up the re-colonization process by decades.

The *Marine Fisheries* Eelgrass Restoration Project provides a "hands-on" educational experience for members of the community. Participation in this project by local citizens is welcome, not only for the practical help it provides, but to create a sense of ownership and stewardship among participants that will help ensure the long-term protection of this important resource. Also, various labor-intensive aspects of eelgrass restoration become much more feasible when volunteer assistance is utilized. In turn, volunteers can provide valuable knowledge about local conditions that can be of use to scientists. Volunteers who are versed in aquatic or non-aquatic disciplines will be welcomed: e.g., SCUBA divers, snorkelers, kayakers, shoreline assistants.

Communication:

Project results will be communicated to volunteers in several ways. Volunteers will be given the HubLine web address to track updates of project activities and can be sent formal reports as needed. An e-mail newsletter will be crafted and sent to all volunteer participants as results are generated.

This handout will serve as an outline of the expectations, limitations, and rules for taking part in the project. There are many opportunities of varying types to offer almost every volunteer. The restoration of eelgrass in Boston Harbor is a complex and multi-staged process involving the following:

Harvest: Harvest will be done primarily with SCUBA in existing eelgrass beds. Plants will be removed from the bottom and put into mesh bags. **Divers** will bring full bags to the surface. On the surface, either **waders** (where applicable) or **boaters** (motorized and non-motorized) will ferry harvested plants to volunteers on shore. These workers will **sort plants**, disposing of unsuitable ones, and **bundle** them into clumps of 50 shoots.

Planting: Plants will be brought from a donor site to the planting location via boat or truck by *Marine Fisheries* personnel. At the planting site, volunteers on the beach will tie plants to TERFS (wire-mesh cages) and other types of frames. TERFS will be loaded onto boats for deployment. **Volunteers on the boats** will lower the frames into the water for placement on the bottom by **divers**. In addition, some shoots will be hand-planted. Bundled shoots will be **carried** from beach to kayakers, who will in turn **shuttle** them to **divers**. **Divers** will **hand-plant** these shoots according to instruction.

REQUIREMENTS FOR PARTICIPANTS

Driving – Volunteers are responsible for providing their own transportation to and from the work site(s) on any given day.

Motorized boating --all volunteers who are in a state boat will be required to wear a Coast Guard approved Type II, III, or V PFD. All volunteers who bring personal motorized watercraft will be expected to be familiar with safe boating practices and be able to handle their vessel safely and competently. *Marine Fisheries* assumes no responsibility for the vessels of participants.

Non-motorized boating (primarily kayaks) -- riders will be expected to boat in a safe fashion. In addition, non-motorized boaters will be expected to wear a Coast Guard approved PFD and reasonable exposure protection as conditions warrant.

Skin diving (snorkeling) – swimmers and snorkelers will be expected to work in a safe manner. Both will be subject to much of the same scrutiny as SCUBA divers (below).

SCUBA diving -

Participating divers must:

- 1- furnish their own equipment.
- 2 – show a valid recognized diver's certification (C-card).
- 3 – be free of health-related issues that will hinder or otherwise jeopardize the safety of the diver, other divers, or participants.
- 4 - sign a waiver that holds the *Marine Fisheries* free of liability in the case of accidental injury or death.
- 5 - participate in field training exercises.
- 6 - be approved by members of the *Marine Fisheries* staff.
- 7 - on days where diving will take place, all divers will be questioned about their current physical condition. (How are you feeling today?). If a prospective diver is not feeling well or has any symptoms that would inhibit their abilities or compromise their safety or that of other participants, they will be asked to refrain from participating on that day(s).
- 8 - *Marine Fisheries* team leaders reserve the right to refuse a volunteer's participation if it is not in the best interest of safety or the Project's goals and objectives.

Diver Rights and Responsibilities:

1. The individual diver must realize that he/she is ultimately responsible for his/her own safety. It is the diver's responsibility to refuse to dive if in his/her own judgment:
 - a. conditions are unfavorable (e.g., environmental, personnel, planning, etc.);
 - b. the participant is not qualified for the diving depth, environmental conditions, equipment, or procedures designated for the operation;
 - c. the participant is not in proper physical or mental condition for diving;
 - d. the equipment provided for the dive is inadequate or malfunctioning.
 2. The diver has the responsibility to terminate a dive, without fear of penalty, whenever he/she feels it is unsafe to continue. However, the safety of other divers must not be compromised.
 3. The diver shall report any physical problem, injury, or symptoms of diving-induced malady, equipment malfunction or discrepancy to the project manager and team members.
 4. Each diver shall be responsible for pre- and post-dive functional inspection and maintenance of his/her own equipment.
 5. It is our preference that divers work together to provide mutual assistance as needed. Groups of two or more are recommended.
 6. The diver shall furnish the following information to MDMF: name, dive qualifications/certifications, name and contact information for emergency contact.
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Important Phone Numbers:

Divers Alert Network (DAN) 919 - 684 - 8111

Marine Fisheries Pocasset 508 - 563 -1779,
Alison ext. 142
Ross ext. 118
Bruce ext. 114

ELE Radio Room 800 - 632 - 8075

Harbormasters by Town:

BOSTON	Boston	Harbor Patrol	(617) 343-4721
REVERE	Paul	Pisano	(978) 335-5661
NAHANT	William	Waters	(781) 581-0626
QUINCY	Andy	Ayer	(617) 376-1283
HULL	Kurt	Bornheim	(781) 925-0316
WEYMOUTH	Paul	Milone	(781) 682-6109, Cell: (617) 947-5667
HINGHAM	John	Souther	(781) 741-1450, Pol. Emerg. (781) 749-1212
LYNN	Jim	Perry	(781) 593-9850
WINTHROP	Charles	Flamolare	(617) 846-0266 (Cell)

Coast Guard, Harbor Master, general emergencies: **Channel 16 on a VHF radio.**

Ambulance, Fire, Police: **911**